Amendment to the claims:

- 1. (original) A linear amplifier comprising an input terminal and an analogue switch, with a switch input connected to the input terminal and a switch output connected to the switch input to provide negative feedback.
- 2. (original) A linear amplifier according to claim 1 wherein the switch output is connected to an output terminal.
- 3. (currently amended) A linear amplifier according to any preceding claim_1, wherein the switch is connected to a supply voltage.
- 4. (currently amended) A linear amplifier according to any preceding claim_1, wherein the switch input is connected to the input terminal via a first resistance.
- 5. (original) A linear amplifier according to claim 4, wherein the switch output is connected to the input terminal via a second resistance.
- 6. (original) A linear amplifier according to claim 5, wherein a closed loop gain of the amplifier is determined from the ratio of the second and first resistances.
- 7. (currently amended) A linear amplifier according to any preceding—claim_1, in which the analogue switch is configured to operate at temperatures of at least 200°C.
- 8. (cancel)

- 9. (original) A Schmitt trigger comprising an input terminal and an analogue switch, with a switch input connected to the input terminal and a switch output connected to the switch input to provide positive feedback.
- 10. (original) A Schmitt trigger according to claim 9, wherein the switch output is connected to an output terminal.
- 11. (currently amended) A Schmitt trigger according to any of claims claim 9 or 10, wherein the switch is connected to a supply voltage.
- 12. (currently amended) A Schmitt trigger according to any of claims claim 9-to 11, wherein the switch input is connected to the input terminal via a first resistance.
- 13. (original) A Schmitt trigger according to claim 12, wherein the switch output is connected to the switch input via a second resistance.
- 14. (currently amended) A Schmitt trigger according to any of claimsclaim 9-to 13, in which the analogue switch is configured to operate at temperatures of at least 200°C.
- 15. (cancel)